

REMARKS

Status Summary

Claims 1-38 are pending in the present application and claims 39 and 40 have been added. Therefore, upon entry of this amendment, claims 1-40 will be pending.

Claim Rejection - 35 U.S.C. § 102

Claims 1-12 and 15-38 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,952,582 to Murai, hereinafter referred to as "Murai." This rejection is respectfully traversed.

Claims 1, 15, and 29 have been amended to recite "a routing node or the location register caching application are separate from an HLR and a VLR and located in a communication path between the HLR and the VLR. Support for this amendment is found, for example, in Figures 4 and 5 and on page 20, line 18 through page 23, line 22 of the present specification. In particular, Figure 5 illustrates that MMR node 300 is separate from and located in the communication path between VLR 116 and HLR 104. Page 20, line 18 through page 23, line 2 describe the interception of a MAP update location message by MMR node 300, the caching of location information, and the use of the cached information to process subsequent messages. Figure 4 illustrates that the location register caching application is a component of MMR node 300 and is thus separate from and located in the communication path between the HLR and the VLR.

There is absolutely no teaching or suggestion in Murai of a method or a system where a routing node or a location register caching application separate from an HLR and a VLR and located in a communication path between the HLR and the VLR

receives signaling messages relating to a subscriber, extracts and caches mobile subscriber information and uses the cached information to process subsequent signaling messages. Murai describes a system where a home agent (HA) 7, which is not in a communication path between an HLR and a VLR, communicates with HLR 4 in order to synchronize database entries with HLR 4. (See Murai Figure 2). HA 7 performs HLR-like functions for packet network communications. In Figure 2, HA 7 is connected to packet gateway 6 and to HLR 4 and is not in the communication path between VLR 5 and HLR 4. Thus, Murai fails to disclose, teach, or suggest a method or a system where a routing node or a location register caching application separate from an HLR and a VLR and located in a communication path between the HLR and the VLR caches mobile subscription information from signaling messages transmitted between the HLR and the VLR and uses the cached information to process subsequent messages transmitted between the HLR and the VLR as claimed in independent claims 1, 15, or 29. For this reason alone, it is respectfully submitted that the rejection of the claims as anticipated by Murai should be withdrawn.

On page 4, the Official Action indicates that column 4, lines 23-27 disclose a routing node as claimed. Applicants respectfully disagree. Column 4, lines 23-27 of Murai state as follows:

. . . inform an update content through the communication channel to the home location register. With the above-mentioned method, it is possible to establish matching between the current location information managed by the home location register and corresponding to . . .

The above-quoted passage from Murai indicates that the location information managed by the home agent is matched with the location information managed by the HLR.

There is no mention of any routing node in this passage. Accordingly, for this additional reason, the rejection of claims 1, 15, 29, and their dependent claims as anticipated by Murai should be withdrawn.

On page 3, the Official Action indicates that column 6, lines 44-59 of Murai disclose using the cached information in the processing and routing of subsequent signaling messages transmitted by the HLR or the VLR relating to the mobile subscriber. Applicants respectfully disagree. Column 6, lines 44-59 of Murai state as follows:

Thereafter, the location registration request signal is sent through the MSC 3 to the HLR 4 so that the first RN identifying information registered in the HLR 4 is rewritten into second RN identifying information as current location information associated with the MS 1.

The above-mentioned operation is known in the art and is therefore not shown in a flow chart. The current location information is recorded in the subscriber database 16 in the HLR 4 (g in FIG. 4).

When the current location information is initially written or thereafter updated (step **S13**) as mentioned above, the location information update unit 13 arranged in the HLR 4 reads subscriber specifying information and the current location information g from the subscriber database 16 (step **S14**).

The above-quoted passage from Murai indicates that a mobile station registers when it moves into an area served by a different radio network. There is no mention of using cached registration information to process or route the signaling message. Accordingly, for this additional reason, the rejection of claims 1, 15, and 29 as anticipated by Murai should be withdrawn.

Claim Rejections – 35 U.S.C. § 103

Claims 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Murai. This rejection is respectfully traversed.

Claims 13 and 14 depend from claim 1. As stated above with regard to the rejection of claim 1, Murai fails to teach or even remotely suggest a method that occurs in a routing node separate from an HLR and a VLR and located in the communication path between the HLR and the VLR where the method includes caching mobile subscriber information from received signaling messages and using the cached information to process subsequent signaling messages relating to the subscriber. Accordingly, for the same reasons stated above with regard to claim 1, it is respectfully submitted that the rejection of claims 13 and 14 as unpatentable over Murai should be withdrawn.

Declaration under 37 C.F.R. § 1.131

As an alternate ground for overcoming the rejection, Applicants have attached a Declaration under rule 131 swearing behind the U.S. filing date of Murai. Murai has a U.S. filing date of August 17, 2001. In the attached Declaration under 37 C.F.R. 1.131, Applicants declare that they conceived of the invention at least as early as June 14, 2001. Applicants also respectfully submit that they were duly diligent between June 2001 and January 10, 2002 when the invention was constructively reduced to practice by filing the subject patent application in the United States Patent and Trademark Office. As evidence of Applicants' due diligence in constructively reducing the invention to practice, Applicants have attached emails, time records, and other documents

indicating that drafts of the patent application were being worked on by Applicants and by Applicants' attorney from June 2001 until the filing of the patent application in January 2002. Accordingly, Applicants respectfully submit that the attached Declaration and its attachments establish a conception date that is earlier than the U.S. filing date of Murai and due diligence in constructively reducing the invention to practice. Thus, for this additional reason, Applicants respectfully submit that the rejection of the claims as anticipated by or unpatentable over Murai should be withdrawn.

New Claims

New claims 39 and 40 are added. Support for new claims 39 and 40 appears, for example, within Figure 7 and on page 30, line 2 through page 33, line 11 of the present specification. Claims 39 and 40 are believed to be patentable over the references cited in the Official Action for the same reasons stated above with regard to independent claims 1, 15 and 29.

CONCLUSION

In light of the above remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

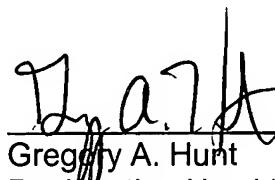
If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks and Amendments, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

A check in the amount of \$1,130.00 is enclosed for the \$450.00 Extension of Time fee, the \$500.00 additional claims fee, and \$180.00 Information Disclosure Statement fee. However, the Commissioner is authorized to charge any deficiencies of payment or credit any overpayments associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

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By:

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